

IN THE CLAIMS:

Please cancel Claims 1 to 77 without prejudice or disclaimer of subject matter. Please add Claims 78 to 93, as follows:

1. to 77. (Cancelled)

78. (New) An apparatus for manufacturing a structure having a gas-liquid separating element for allowing a gas to pass therethrough while blocking passage of a liquid, and an opening which is blocked by mounting the gas-liquid separating element so as to close the opening, the apparatus comprising:

an energy supplying head for supplying the energy to a joined portion between an outer peripheral portion of the opening of the structure and the gas-liquid separating element so as to close the opening; and

restricting means for restricting the energy transfer from the energy supplying head to a working portion of the gas-liquid separating element so that the working portion is unaffected by the energy generated from the energy supplying head, wherein the working portion faces the opening, passes gas therethrough, and blocks passage of the liquid.

79. (New) An apparatus according to Claim 78, wherein the energy supplying head is a thermal head for generating heat, wherein said energy supplying head has an annular hollow construction so as to allow only the joined portion of the gas-liquid separating element to be heated.

80. (New) An apparatus according to Claim 79, wherein the thermal head incorporates a heater only in a tip portion thereof which comes into contact with the joined portion of the gas-liquid separating element so that only a portion of the gas-liquid separating element is heated.

81. (New) An apparatus according to Claim 79, further comprising means for avoiding heat from the thermal head, the means for avoiding the heat being placed on the opposite side of the thermal head via the gas-liquid separating element and being made of metal for absorbing heat of the thermal head from the gas-liquid separating element by contacting the gas-liquid separating element when the gas-liquid separating element is joined to the structure.

82. (New) An apparatus according to Claim 79, further comprising means for avoiding heat from the thermal head, the said means for avoiding the heat having an annular exhaust construction for absorbing heat from an annular hollow portion of the thermal head having the annular construction when the gas-liquid separating element is joined to the structure.

83. (New) An apparatus according to Claim 79, further comprising means for avoiding heat from the thermal head, said means for avoiding the heat having a heat insulation member for preventing a heat transfer by touching with the working portion of the gas-liquid separating element and being placed within an annular hollow portion of the thermal head having the annular construction when the gas-liquid separating element is joined to the structure.

84. (New) An apparatus according to Claim 78, wherein the energy supplying head is an ultrasonic head generating ultrasonic vibration, wherein the ultrasonic head has an annular hollow construction corresponding to the joined portion of the gas-liquid separating element.

85. (New) An apparatus according to Claim 84, further comprising means for avoiding an ultrasonic vibration from the ultrasonic head, said means for avoiding the ultrasonic vibration having a vibration insulating member for preventing transmission of vibration by touching with the working portion of the gas-liquid separating element and being placed within a hollow portion of the annular ultrasonic head when the gas-liquid separating element is joined to the structure.

86. (New) An apparatus according to Claim 78, wherein a thermosetting adhesive or a hot-melt adhesive is applied on the joined portion between the outer peripheral portion of the opening of the structure and the gas-liquid separating element.

87. (New) A method for manufacturing a structure comprising a gas-liquid separating element for allowing a gas to pass therethrough while blocking passage of a liquid, and an opening which is blocked by mounting the gas-liquid separating element so as to close the opening, the method comprising the steps of:

supplying an energy for joining a joined portion between the portion of the structure surrounding the opening of the structure and the gas-liquid separating element so as to close the opening; and

restricting the applied energy to a working portion of the gas-liquid separating element so that the working portion is unaffected by the energy generated from

the energy supplying head, the working portion facing the opening, passing the gas therethrough, and blocking passage of the liquid.

88. (New) A method according to Claim 87, wherein the step of supplying the energy is carried out using a thermal head for applying heat, and wherein the step of restricting the applied energy eliminates heat from the working portion of the gas-liquid separating element, or insulates the heat from the thermal head so that the heat is prevented from transferring to the working portion of the gas-liquid separating element.

89. (New) A method according to Claim 88, wherein the step for supplying the energy is carried out using an ultrasonic head for generating ultrasonic vibration, and wherein the step of restricting the applied energy insulates the vibration from the ultrasonic head so that the vibration is prevented from transferring to the working portion of the gas-liquid separating element.

90. (New) A structure having a gas-liquid separating element for allowing a gas to pass therethrough while blocking passage of a liquid, and an opening which is blocked by mounting the gas-liquid separating element so as to close the opening, wherein:

the gas-liquid separating element is divided into a joined portion and a working portion,

wherein said joined position is joined with an outer peripheral portion of the opening of the structure so as to close the opening

wherein said working portion faces the opening, passes the gas therethrough, and blocks passage of the liquid, and

wherein said joined portion is supplied with energy for welding with an outer peripheral portion of the opening of the structure so that the working portion of the gas-liquid separating element is joined to the structure by using a manufacturing apparatus which comprises means for avoiding the energy, the means for avoiding the energy being not affected by the energy applied to the joined portion.

91. (New) A structure having a gas-liquid separating element for allowing a gas to pass therethrough while blocking passage of a liquid, and an opening which is blocked by mounting the gas-liquid separating element so as to close the opening, the structure, the gas-liquid separating element being divided into a joined portion which is joined with an outer peripheral portion of the opening of the structure so as to close the opening and a working portion which faces the opening, passes the gas therethrough, and blocks passage of the liquid, the structure further comprising:

a pressing element for pressing the gas-liquid separating element against the structure, the pressing member having a plurality of bosses which are engaged with other openings provided independently of the opening of the structure so that the gas-liquid separating element is mounted with the structure by deforming the bosses of the pressing member.

92. (New) A liquid tank, comprising:

a negative pressure introducing section for introducing negative pressure into the liquid tank;

a liquid intake section for taking a liquid in the liquid tank by the negative pressure introduced from the negative pressure introducing section; and

a gas-liquid separating element for passing through only a gas, the gas-liquid separating element being disposed in the negative pressure introducing section;

wherein the gas-liquid separating element is constructed such that the gas is allowed to pass therethrough while the liquid is prevented from passing therethrough, and the negative pressure introducing section has an opening to which the gas-liquid separating element is mounted so as to close the opening, and

wherein the gas-liquid separating element is divided into a joined portion which is joined with an outer peripheral portion of the opening of the structure so as to close the opening, and a working portion which faces the opening, passes the gas therethrough, and blocks passage of the liquid, the joined portion being supplied with the energy for welding with the outer peripheral portion of the opening of the structure so that the working portion of the gas-liquid separating element is joined with the structure by using a manufacturing apparatus which comprises means for avoiding the energy, the means for avoiding the energy being not affected by the energy applied to the joined portion.

93. (New) A liquid tank comprising a container body for storing a liquid, an opening through which the liquid is taken out, an atmosphere communication port for communicating with atmospheric air, and a gas-liquid separating element for allowing a gas to pass therethrough, the gas-liquid separating element being disposed in the atmosphere communication port,

wherein the gas-liquid separating element is constructed such that the gas is allowed to pass therethrough while the liquid is prevented from passing therethrough, and the negative pressure introducing section has an opening to which the gas-liquid separating element is mounted so as to close the opening, and

wherein the gas-liquid separating element is divided into a joined portion which is joined to an outer peripheral portion of the opening of the structure so as to close the opening, and a working portion which faces the opening, passes the gas therethrough, and blocks passage of the liquid, the joined portion being supplied with the energy for welding with the outer peripheral portion of the opening so that the working portion of the gas-liquid separating element is joined to the structure by using a manufacturing apparatus which comprises means for avoiding the energy, the means for avoiding the energy being not affected by the energy applied to the joined portion.